

CLAIMS

What is claimed is:

1. A embolectomy catheter comprising a lumen including a grooved insertion end.
2. The catheter according to claim 1, wherein said catheter includes a grooved tip affixed to said insertion end.
3. The catheter according to claim 2, wherein said tip is a fixed tip.
4. The catheter according to claim 2, wherein said tip is rotating tip relative to said lumen.
5. The catheter according to claim 1, wherein said grooved tip is affixed via a coupling joint rigidly affixed at said insertion end of said catheter.
6. The catheter according to claim 1, wherein said grooved insertion end includes a spiral groove formed on an exterior surface of said lumen.
7. The catheter according to claim 1, further including perfusion sideholes extending through an exterior surface of said catheter.
8. The catheter according to claim 1, further including a plunger operably connected to said insertion end of said catheter for preventing migration of fragment of a thrombus.
9. The catheter according to claim 8, wherein said plunger is formed of a hydrophilic material.

10. The catheter according to claim 9, wherein said hydrophilic material is a hydrogel.

11. A method of treating a thrombus in an individual in need of treatment by:

inserting the catheter according to claim 1 into an individual at a location in need of treatment, and

rotating the catheter within the individual at the location in need of treatment, thereby breaking apart the thrombus.

12. The method according to claim 11, wherein said rotating step including spirally rotating the catheter to break apart the thrombus.

13. The method according to claim 11, further including the step of removing the broken fragments of the thrombus.

14. The method according to claim 11, further including administering thrombolytic agents to the thrombus prior to rotating the catheter.

15. The method according to claim 14, wherein said administering step includes administering the thrombolytic agents through perfusion sideholes within the catheter.

16. The method according to claim 11, further including preventing distal migration of fragment of the thrombus.

17. The method according to claim 16, wherein said preventing step includes inserting a plunger attached to the catheter, the plunger preventing distal migration.

18. The method according to claim 11, further including administering a thrombolytic agent through the catheter.

19. The method according to claim 16, wherein said administering step includes spraying the thrombolytic agent through sideholes within the catheter.